

APPARATUS AND METHOD FOR DECODING VARIABLE LENGTH CODE

ABSTRACT OF THE DISCLOSURE

An apparatus and method for decoding a variable length code, wherein a
5 user can set a variable length decoding table, are provided. The apparatus
comprises a pre-decoding unit, a shifter, first through M-th look-up table address
registers, selector, a memory controller, a memory, and a memory searcher. To
decode a variable length coded data bitstream in units of 3 bits, a LOC
information table can be prepared based on a variable length coding table. The
10 LOC information table comprises LOC information bits and node types. LOC
information bits for each node type are expressed using four formats A, B, C, and
D to express the characteristic of a branch generated during 3-bit decoding, each
of the formats A, B, C, and D having a digital value of 2 bits. The pre-decoding
unit comprises a first pre-decoder and a second pre-decoder. One of the first
15 pre-decoder and the second pre-decoder is selected according to the
characteristic of a code of an input data bitstream.